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WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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REPORT FOR THE MONTH OF FEBRUARY, 1938.

HAVRE:

The past month was characterized by subnormal temperatures, abnormal snowfall, and relatively light wind movement. An average temperature of 5.6° was the third lowest February mean in station experience. A range of 58° was recorded within a 24-hour period on the 5th and 6th. Snowfall totaling 10.7 inches occurred on 14 days, indicating that considerable cloudiness pervailed.

Winter grains had ample protection. Slowly melting snow during the last 5 days improved the surface moisture of fallowed ground and also in stubble fields. Brush clearing by W.P.A. workers was practically completed, and recently a new project, involving among other items improvement of grounds, has been started. Various feeding trials involving the beef cattle herd were continued.

Machinery is now being repaired for spring work. A new tractor, hay stacker, sweep rakes, and various shop equipment were purchased for the general farm department.

Maximum temperature, 45°; minimum, -28°; precipitation, 0.46 inch; snowfall, 10.7 inches.

JUDITH BASIN:

The mean for February was only 3° below the 29-year average. Precipitation of 0.14 inch was low compared to the average of 0.56 inch. Several cold spells occurred during the month with four consecutive days having a maximum below zero. Wind movement during the month was moderate, and there was very little soil blowing. The last ten days of the month were warm, and practically all snow from drifts and stubble melted with heavy run-off into coulees and ditches.

Winter wheat and rye appear in good condition with good stands.

On the 21st a 4-year old team was killed by a Great Northern train. This loss will somewhat handicap the field work until replaced.

Maximum temperature, 57°; minimum, -22°; precipitation, 0.14 inch.

HUNTLEY:

Precipitation, wind velocity, and mean temperature during the last month were all below the average. The total precipitation was 0.20 inch, which was less than half the 28-year average of 0.48 inch. With the exception of one light rain amounting to 0.02 inch, the precipitation was in a series of almost daily snow flurries from the 12th to the 18th and scattered flurries outside of that period. The ground was snow-covered a large part of the month.

Minimum temperatures dropped below zero on 9 days during February, the lowest point being -13° on the mornings of the 17th and 18th. The last few days were bright and warm, removing patches of snow and ice and thawing out the ground to some extent. Farmers report winter wheat making a start, the first robin and meadow lark, and by these signs proclaim the arrival of spring. A survey of the plots, however, shows little new growth in the fall-sown grains, although some of the crested wheatgrass plantings have a greenish cast.

Maximum temperature, 63°; minimum, -13°; precipitation, 0.20 inch.

SHERIDAN:

Except for a week during the middle of the month when below zero temperatures were recorded each day, February was comparatively mild. No extremely low temperatures were recorded, and over the last 4 days temperatures were quite high for the season. The average for the month was a fraction of a degree below the station average for February.

Precipitation was just over half the station normal. Wind movement during the last half of the month was quite low, and for the month was about a fourth below the station average for February.

Snow which has covered the ground since early in November melted rapidly over the last few days, and now only the remnants of some drifts, mostly ice, remain.

Winter wheat that emerged last fall appears green and in good condition. Condition of that which failed to emerge could not be fully determined, although the few kernels that could be located in some seedings appeared to be alive and in good condition.

Run-off from melting snow appeared to be light on cultivated ground lying fairly level. Land worked last fall with the damming lister held the water fairly well, even on some fair slopes, but where heavy run-off from above ran on to it, it washed badly. There was some washing in the rotation field, but mostly as a result of run-off from roadways.

Maximum temperature, 58°; minimum, -13°; precipitation, 0.22 inch.

DICKINSON:

Although February weather seemed to be moderate, the mean temperature was 7° below normal. Night temperatures were generally low, but day temperatures were above zero on all but five days. Temperatures of zero or lower were recorded on 22 days with a minimum of -30° on the 17th. The month ended with clear, mild weather, so the snow melted rapidly.

Snowfall amounted to 9.4 inches which measured 0.60 inch precipitation. The heaviest snow, 3.5 inches, was on the 5th. Measurable precipitation was recorded on 8 days. On the 16th the snow measured 16 inches. This settled and melted to an average depth of 6 inches at the end of the month. Although the snow

drifted enough to block roads badly, it formed in irregular drifts about the fields and did not leave bare areas as it sometimes does. As the snow melted, the water went into the soil or settled into the drifts and froze. Soil temperature at a depth of 2 inches and under the snow cover rose from 12° to 24° at the end of the month. Frost was completely out of the soil in many places, and the water soaked in well.

Deep snow over the district required feeding of livestock most of the month. A few farmers are short of feed, but in general there is enough roughage to carry stock through.

Maximum temperature, 43°;minimum, -30°;precipitation, 0.60 inch.

MANDAN:

The month of February was somewhat colder than January, and remained cold until the 24th. Since that time thawing has been general. At the end of the month snow had disappeared from most of the hills. Thawing has not been excessive, and run-off has been low.

The total snowfall for February was 13.9 inches. The precipitation for the month was nearly 3 times as much as the long time average.

There was little wind during the month, and very little drifting of snow around the station. There was some drifting in the country, and many side roads were blocked. Main highways were blocked in spots two or three times during the month.

Snow that fell during the winter practically all remained in place. The prairie was covered with an even blanket of snow, which is most unusual.

The lowest temperature during the winter was -24°.

Maximum temperature, 44°;minimum, -20°;precipitation, 1.06 inches.

BELLE FOURCHE:

The greater part of February was comparatively mild, and the last few days were abnormally warm, but subzero temperatures were recorded on 6 consecutive days during the third week of the month, and the lowest temperature of the winter season occurred on February 16. Precipitation was negligible, the only measurable amount being received in a light snow on February 14 and 15. Wind movement was below normal, but strong winds on February 9 and 24 caused considerable soil blowing.

The soil is in a very dangerous blow condition, and it has been frozen too hard to permit cultivation, except to a very limited extent. A 3-shovel corrugator was used effectively to furrow the partially frozen soil on rotation plots, but only uncertain temporary control of soil blowing may be expected from any type of cultivation until a substantial amount of precipitation is received. Fall grain has withstood the dry, open winter in remarkably good condition, and the heavy growth made last fall has materially checked soil drifting, but considerable blowing has occurred on fallowed land.

Maximum temperature, 64°;minimum, -20°;precipitation, 0.11 inch.

ARCHER:

During the greater part of February the weather was mild, however, the temperature dropped to -16° the morning of February 16, and cold weather prevailed for several days. The maximum temperature, 58°, occurred February 26. The total precipitation was 0.11 inch, the most of which, 0.10 inch, occurred February 15. Slight soil blowing occurred during the first half of the month, but none occurred during the last half.

Winter cereals are in practically the same condition as earlier in the winter, however, winter rye has made slight growth during the last week. Winter wheat plants are small and do not show any surface growth. Livestock are in good condition, and feed appears to be sufficient for normal requirements.

The repair of station farm machinery is nearing completion, and some buildings are being conditioned for the coming season.

Maximum temperature, 58°;minimum, -16°;precipitation,0.11 inch.

NORTH PLATTE:

Mild open weather similar to that of January and the latter part of December continued through February. A mean temperature of 30° was 4° above normal. The low record was -5°, and only three days of zero or lower temperature occurred. Snow on three days near the middle of the month furnished 0.25 inch of precipitation. The eastern half of the State received precipitation of an inch or more at that time.

Winter wheat has been stimulated into early growth, and present survival is considerably ahead of this date last year. Spring wheat was seeded on the D. L. A. plats on March 1. This is 1 day earlier than the earliest previous seeding date, and 27 days earlier than the average seeding date.

AKRON:

February weather appeared to be about normal in every respect except moisture. There were a few hard driving winds that started susceptible soil to blowing. Some cultivation to control soil blowing has been done on the station, and some land that was lister-dammed last fall and is to be seeded this spring has been leveled.

Maximum temperature, 66°;minimum, -2°;precipitation, 0.09 inch.

COLBY:

February was a warm, dry, and generally pleasant month. The wind velocity was below average. Four days during the first half of the month were dusty and windy with some soil blowing, but very little damage was done. Practically all the precipitation during the month came on the 15th and 16th in the form of a misty, sleety, and icy rain which was followed by an inch of snow. The ground has not been frozen most of the time. Wheat does not have an extra supply of moisture but seems to be in good condition, generally. Nearly all farmers have strip tilled in some manner to control blowing. There has been probably ten times as much of this done this winter as any previous year.

Thousands of acres of pastures that appeared to be subject to blowing have been strip tilled in this county. Much of the tillage is being done on the contour.

Maximum temperature, 76°;minimum, -4°;precipitation, 0.12 inch; snow, 1 inch. Precipitation, 51-year average, 0.58 inch.

HAYS:

February passed without any extremely low temperatures and without any storms of severe nature. Generally there was little wind, except for five days, only two of which caused soil drifting to the extent of blotting out the sun for a few hours. For a period of about two hours in the afternoon of the 7th, visibility was reduced to 2 miles and for about an hour on the 8th, it was reduced to half a mile. By nightfall both days, the wind had stopped and all was quiet. Three other days were noted as dusty days.

Some moisture that fell, for most part, in the form of mist and light rain and all of which froze as it fell February 15, 16, and 17, did not entirely disappear for nearly a week. Since then, there has been no dust disturbance.

Winter wheat is greening-up and looks good as viewed down the drill rows. There appears to have been more top growth killing of wheat in the flat bottom furrows made by the Dempster drill than in the sharp furrows left by other drills. However, there seems to be very few of the plants actually dead - I believe thus far the amount of winter killing is very insignificant.

Tulips and other early plants are emerging in rapid order, and buds are swelling on the trees. The nursery department is moving some trees and shrubbery.

Maximum temperature, 72°;minimum, 5°;precipitation, 0.65 inch.

GARDEN CITY:

The first half of the month was rather warm, and then the temperature began to drop. On the night of the 18th, the low reading was -3°, which is the coldest so far this winter. Dust storms were rather frequent the first 13 days of the month - 9 of the days were dusty and on 3 of the 9, bad dust storms occurred. From the 13th on, there was no dust, due to a light snow which fell intermittently from February 14 to 21 and totaled 0.16 inch of water. On the last day of the month 0.05 inch fell in the form of rain.

The wheat on some of the plots is coming up, but it will need moisture in the very near future, especially on the continuously cropped plots.

Field work consisted of chiseling the pasture where the basin lister project is located, and staking the plots where soil samples are to be taken for organic matter and total nitrogen.

Maximum temperature, 74°;minimum, -3°;precipitation, 0.21 inch.

TUCUMCARI:

The mean temperature for the month was normal, but the first half was unusually warm and the last half much colder. Mean temperature for the first 14 days was 49.8° and for the last 14 days, 31.9°.

Wind velocity was low and no soil blowing occurred. The month was without precipitation until after the 16th. Several snows occurred during a 10-day period, and 0.35 inch precipitation in the form of a warm rain fell the last evening of the month. Of the total precipitation of 1.30 inches, nearly an inch fell in the form of snow.

This entire area received beneficial moisture the last ten days of the month, and wheat prospects now are the brightest in some time.

Livestock are in fair condition, and losses the coming two months should be light.

Maximum temperature, 76°; minimum, 7°.

DALHART:

For the first half of the month unseasonably warm weather with rather frequent dust storms but with a near absence of soil drifting prevailed. Conditions during that time were such that sweeping winds would have moved large amounts of surface soil. From the middle of the month on a series of snows through a period of a week furnished a total of 8-3/4 inches of snow. This snow was not drifted nor even disturbed by winds while it lay on the ground. In fact, wind velocities were unusually low during this period. By the end of the month the temperatures, which reached the season's low of 1° while the snow was on the ground, had moderated sufficiently so that the snow had melted and had furnished the surface soil with the first spring moisture we have had at this season for a number of years. Rye is beginning to send out green growth again, but the wheat may have been punished so that recovery is doubtful. Soil drifting was at a low point for February. Quite likely this should be attributed to the climatic conditions; the total wind movement for the month was the lowest so far recorded for any February. Work has consisted largely of transplanting and watering conifers, threshing bagged seed, pruning the vineyard, and winter work on machinery.

Maximum temperature, 74°;minimum, 1°;precipitation, 0.40 inch.

BIG SPRING:

Climatic conditions during the month of February were unusual in many respects. There were only six days during the month when the minimum temperature was below freezing, and then the low point was only 25°. This unusually warm weather has caused many of the fruit trees to blossom, which means that they will in all probability be killed before the danger of freezes are past.

Precipitation during the month totaled 1.76 inches as compared with a normal of 0.74 inch. This was received on six different days and included a 3-inch snow. Wind velocity has been low, with no blows hard enough to cause any soil movement.

As a result of the warm weather and ample soil moisture, the wheat in this section is making a rapid growth and is furnishing an abundance of grazing at this time. Many of the shrubs are leafing out, and some of the spireas and honeysuckles are in bloom.

Station work has consisted of pruning grapes, trees, and shrubs and replacing scale foundations.

Maximum temperature, 80°; minimum, 25°;precipitation, 1.76 inches.

LAWTON:

February rainfall records that date back to 1871 were broken when 5.30 inches were recorded February 13 to 20. Most of this precipitation fell rather gently, and there was a surprisingly small amount of run-off and erosion.

Temperatures for the first half of the month were 11.5° above normal, and the rains were preceded by 6 days of maximum temperatures of 72° to 75°. Some snow and a minimum temperature of 15° followed the rainfall. No flood damage occurred in the southwestern part of the State, and the thoroughly soaked soils should push the spring growth of small grains rapidly.

Spring seeded oats that emerged previous to the cold weather of the latter half of February appear to be severely damaged, with the likelihood that only a fraction of a stand will survive. Fall seeded oats and winter barley and fall sown alfalfa show heavy leaf tip injury only.

In the oats rate and date-of-seeding test, only one planting, that of February 5, has been possible. This seeding emerged to good stands, but they appear to have been heavily reduced. The rotation plots of oats seeded February 7, and the variety test of spring sown oats, seeded February 9 are just now emerging.

Station seedings of wheat are in excellent condition, and no insect or cold injury is apparent. Insect complaints from wheat farmers now include wheat grub worms, cutworms, and green bug. Such injury is sharply localized but frequently very destructive.

WOODWARD:

The month of February was mild except for one cold snap on the 18th and 19th when temperatures were 6° and 9°. There were a number of days of moderately high wind, and considerable cultivation was being done to hold soil over the country generally. The lister is the implement almost universally used. From the 14th to the 18th there was sleet and snow totaling 2.15 inches precipitation. The snow melted slowly, much of the moisture sinking into the soil, as was attested by the almost impassible country roads. On March 1 the surface is not yet dry enough to blow. Wheat had started to grow rapidly before the snow and is resuming that growth the past few warm days. Farmers probably were never more optimistic over the possibilities of a good wheat crop. On every hand one hears "It's starting out just like 1915".

Work during February consisted mostly of cleaning seed, planting nursery stock, clearing up brush, spraying, and general repairing.

Maximum temperature, 82°;minimum, 6°;precipitation, 2.21 inches.

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